

Value of YouTube to the music industry - Paper IV - Value for consumers

June 2017

1 Introduction

The music industry has undergone significant change over the past few years, with declining volumes of music sold through an ownership model (such as downloads) and rapid growth in usage models (such as streaming).¹ While many services provide value to the recorded music industry, in the 12 months to December 2016 one video streaming platform, YouTube, paid out over USD 1 billion to the music industry from advertising alone.² YouTube claims that not only does it return money directly to creators, but also that it has a promotional effect on music.³ However, some commentators argue that YouTube has a negative impact on the music industry: paying insufficiently for content and cannibalising other services.

RBB Economics has undertaken several empirical analyses in order to evaluate YouTube's potential promotional or cannibalisation effects on the music industry in Europe. We analyse the results from 1,500 person user surveys carried out in each of four European countries, as well as data on YouTube views and streams on audio platforms of over 8,000 tracks across four European countries over a three year period.⁴

In our first note we considered the evidence of cannibalisation by YouTube of other legitimate music services.

- Looking at survey evidence we found that significant cannibalisation is unlikely: users of music on YouTube are primarily lighter users, and if music videos were no longer shown on YouTube, 85% of users' time would be lost or shifted to lower value channels, and even to file sharing or piracy.
- Looking at historical data, we found that when particular songs were blocked on YouTube, in Germany, there was generally no significant increase in audio streaming volumes for those same songs.
- On the basis of these data, we find no evidence of significant cannibalisation by YouTube of other legitimate music services.

In our second note, we considered evidence on the patterns of growth of different platforms over time, primarily audio streaming and video streaming platforms.

- Survey evidence showed that YouTube is the most important source of discovery for YouTube users, and that heavier YouTube users also more heavily consume music through other legitimate channels.

¹https://www.theguardian.com/music/musicblog/2016/apr/28/youtube-no-other-platform-gives-as-much-money-back-to-creators?CMP=twl_a-music_b-gdnmusic

²<https://youtube.googleblog.com/2016/12/a-billion-reasons-to-celebrate-music-on.html>

³https://www.theguardian.com/music/musicblog/2016/apr/28/youtube-no-other-platform-gives-as-much-money-back-to-creators?CMP=twl_a-music_b-gdnmusic

⁴ Throughout the report plays of YouTube music videos will be referred to as "views" and plays of audio streams as "streams". YouTube views are sourced from YouTube. Audio streams are sourced from third parties including GfK and OCC.

- Data on YouTube views and streams on audio platforms showed that streaming volumes have continued to grow strongly, and in most markets have grown more strongly than video streams.
- We also found that individual songs that achieve higher video streaming volumes on YouTube, achieve higher audio streaming volumes on platforms like Spotify (and vice versa).
- These findings indicated that video and audio streaming have grown in tandem, and did not indicate significant substitutability between these two channels.

In our third note, we considered the evidence of a potential promotional effect of YouTube on other legitimate music services in more detail.

- Looking at historical data, not only have audio streaming volumes continued to grow rapidly over the past few years, while video streaming volumes have also grown, but when songs achieve higher video streaming volumes, they also achieve higher audio streaming volumes.
- YouTube views actually tend to peak earlier than streaming volumes, and YouTube views tend to “lead” streams: views tend to rise first and then streams rise; YouTube views fall and then streams fall.
- Tracks with higher initial exposure on YouTube achieve higher streams on paid services like Spotify or Apple Music in subsequent months, compared with new releases that had lower initial exposure on YouTube.
- This evidence is consistent with a significant promotional effect.

In our final two notes, we will consider the questions of consumer value and overall value to the music industry.

- In this fourth note, we consider the evidence of value for consumers arising from YouTube’s music video offering.
- In our fifth note, we will consider the direct value for the music industry.

2 Users listen to a broad diversity of music on YouTube

We consider the data on YouTube views and streams on audio platforms. RBB received historical data from GfK for France, Germany and Italy, and from OCC for the United Kingdom, showing weekly volumes of audio streaming and downloads for a picklist of over 8,000 tracks across these countries; RBB also received internal data from YouTube on video streaming volumes for the same tracks for the United Kingdom, France, Germany and Italy.

The data on views and streams allow us to investigate the different ways in which consumers listen to music on audio streaming platforms (such as Spotify) and video streaming platforms (such as YouTube). We find that users tend to use audio streaming platforms and YouTube differently. In summary:

- **YouTube users tend to listen to less popular tracks.** The top tracks on streaming platforms typically have more streams than YouTube views in the United Kingdom, France and Germany, whereas the less popular tracks on streaming platforms tend to generate more views than streams. This suggests that users are more likely to favour audio streaming services for the more popular tracks.
- **YouTube users tend to listen to slightly older tracks.** Breaking down songs by age shows that users' tendency to use YouTube to listen to less popular tracks is not driven by differences in the age of tracks; if anything YouTube users tend to listen to slightly older songs than the average on streaming platforms.
- **Official videos uploaded by the music industry directly (premium music videos) account for the largest share of YouTube views for the sample of tracks for which we received data,** and the shares of PMVs are even higher for newer and more popular tracks.

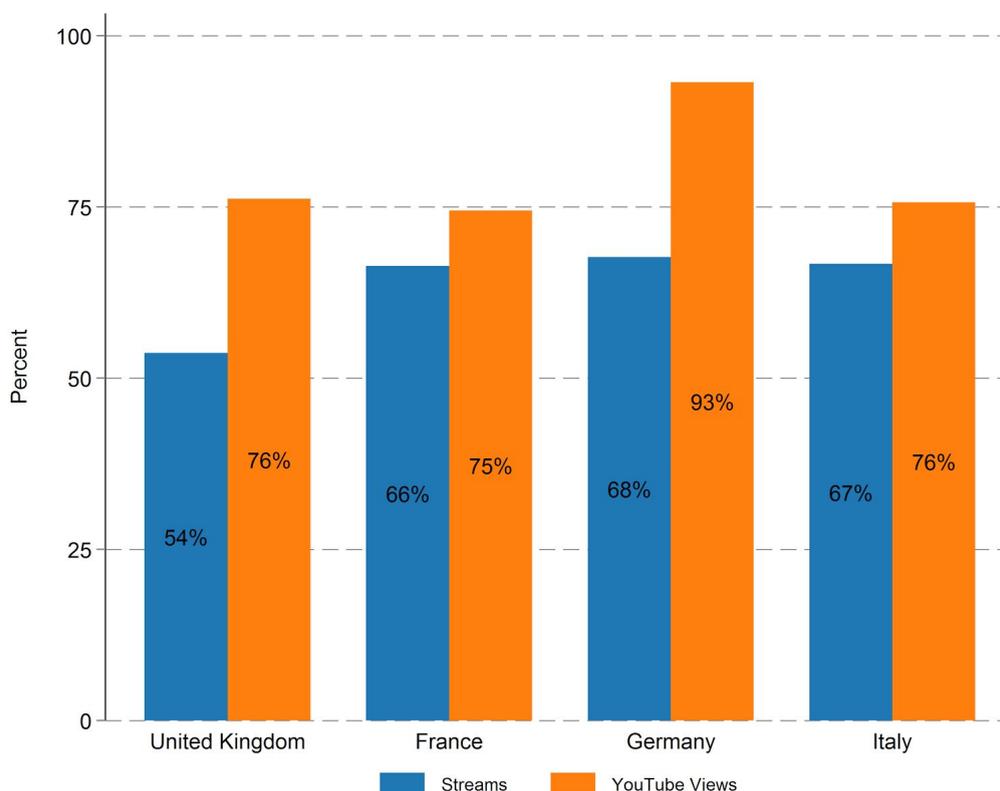
2.1 Users tend to use YouTube to consume less popular music

Figure 1 below shows the distribution of volumes between the top streaming tracks and the non-picklist tracks, for each of streaming platforms and YouTube. Specifically the blue series shows the proportion of total platform consumption that was accounted for by non-picklist tracks for audio streaming platforms in each country; the blue series shows the corresponding proportion of total platform consumption that was accounted for by non-picklist tracks for YouTube, in the same countries.

The most popular songs represent a much larger share of streaming platforms than on YouTube. The top streaming tracks make up 32% to 46% of total streaming volumes, but only 7% to 25% of total YouTube views, varying by country. The less popular, non-picklist tracks make up only 54% to 68% of total streaming volumes, but as much as 75% to 93% of

total YouTube views. **Users tend to use audio streaming platforms primarily for top songs, whereas YouTube is more likely chosen for less popular songs.** YouTube users listen to a much larger base of songs on YouTube, which are not as popular on streaming services.

Figure 1: Shares of less popular tracks (non-picklist tracks) on audio streaming platforms and YouTube



Source: RBB analysis of GfK data, OCC data and YouTube internal data.

This trend is consistent across all four countries, being more pronounced in the United Kingdom and in Germany. In the United Kingdom, the tracks outside the top 3,500 streaming tracks constitute only 54% of total streaming volumes, but constitute 76% of total YouTube views. In Germany, the tracks outside the top 2,000 constitute only 68% of total streaming volumes, but 93% of total YouTube views.

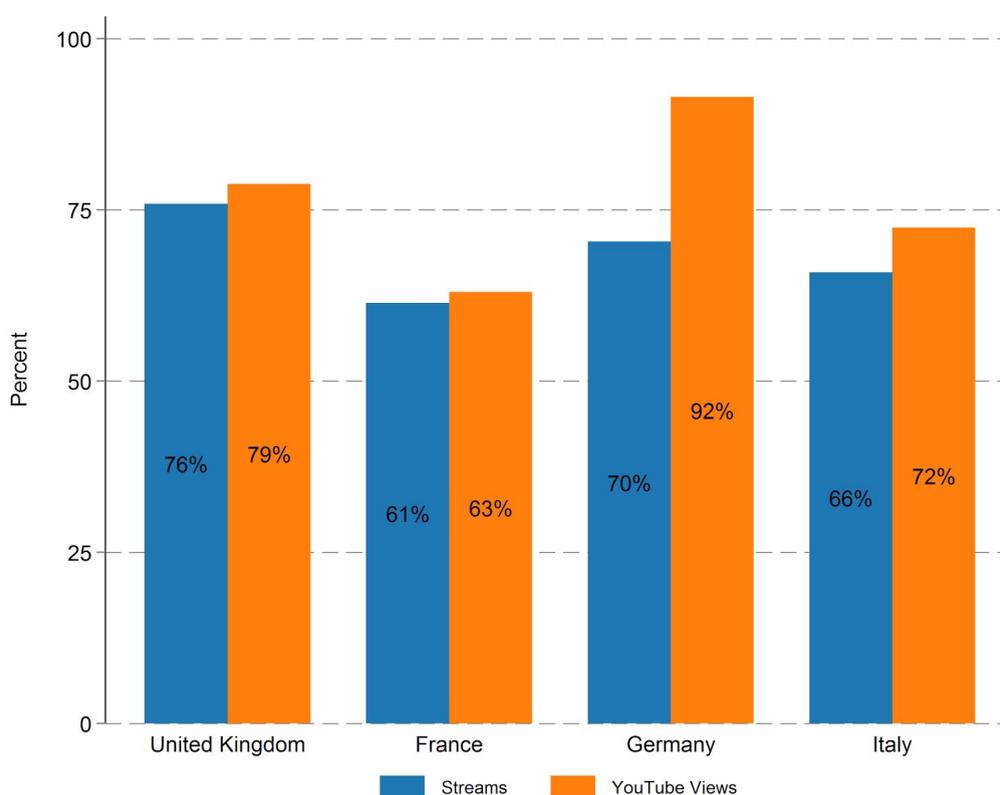
2.2 Users tend to use YouTube to consume older music

Users' tendency to listen to more popular songs on streaming platforms, and less popular songs on YouTube does not seem to be driven by differences in the songs' ages. We

compare the age of tracks between streaming platforms and YouTube. The age of a track was defined at the reference week, the week in which the top streaming tracks were chosen to construct the picklist of tracks. The tracks were then divided into different buckets based on their age, and for each bucket the share of total platform consumption was calculated. The distribution of platform shares in the different buckets was then compared across YouTube and streaming platforms.

Figure 2 below shows that YouTube views and streams have a similar age distribution in the United Kingdom. This suggests that the finding described above, that YouTube over-represents tracks that are less popular on streaming platforms, is not driven by differences in the age of the tracks.

Figure 2: Shares of older tracks (picklist tracks older than 6 months) on audio streaming platforms and YouTube



Source: RBB analysis of OCC data and YouTube internal data. The figure shows the volume share for tracks older than 6 months out of the total volumes for the picklist in the reference week. Age is defined in terms of age at the reference week.

If anything YouTube users tend to listen to slightly older songs than the average on streaming platforms. A similar small difference is observed in the United Kingdom and France. Within our sample of tracks, in Italy, tracks older than 6 months accounted for 66% of streams, but 72% of YouTube views; in Germany streams of tracks older than 6 months accounted for 70% of streams, but 92% of YouTube views.

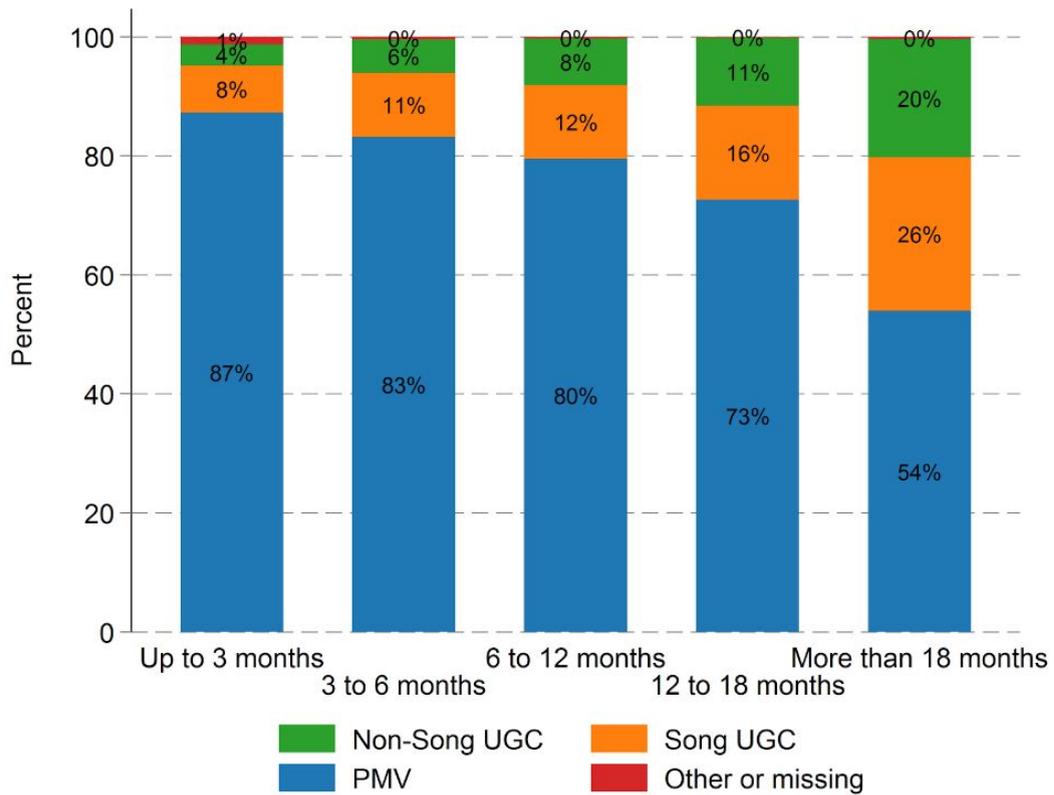
3 User generated content is an important option for YouTube users

The data on YouTube views also allow us to investigate what types of videos have been consumed by YouTube users, in particular whether these were Premium Music Videos, uploaded directly by the music industry, or whether these were user generated content.

User generated content (“UGC”) is an important option for listening to music on YouTube, especially for less popular and older songs. User generated content includes content that users upload to interact with officially uploaded music like a lip sync, wedding, or parody video. User generated content provides revenues for the music industry and allows users a different consumption experience.

Figure 3, below, shows the proportion of YouTube views for the picklist songs that are due to UGC.

Figure 3: Breakdown of songs by type of views, across different song ages, United Kingdom



Source: RBB analysis of OCC data and YouTube internal data. The figure shows the distribution of YouTube views by content type for tracks in the picklist based on their age in the reference week.

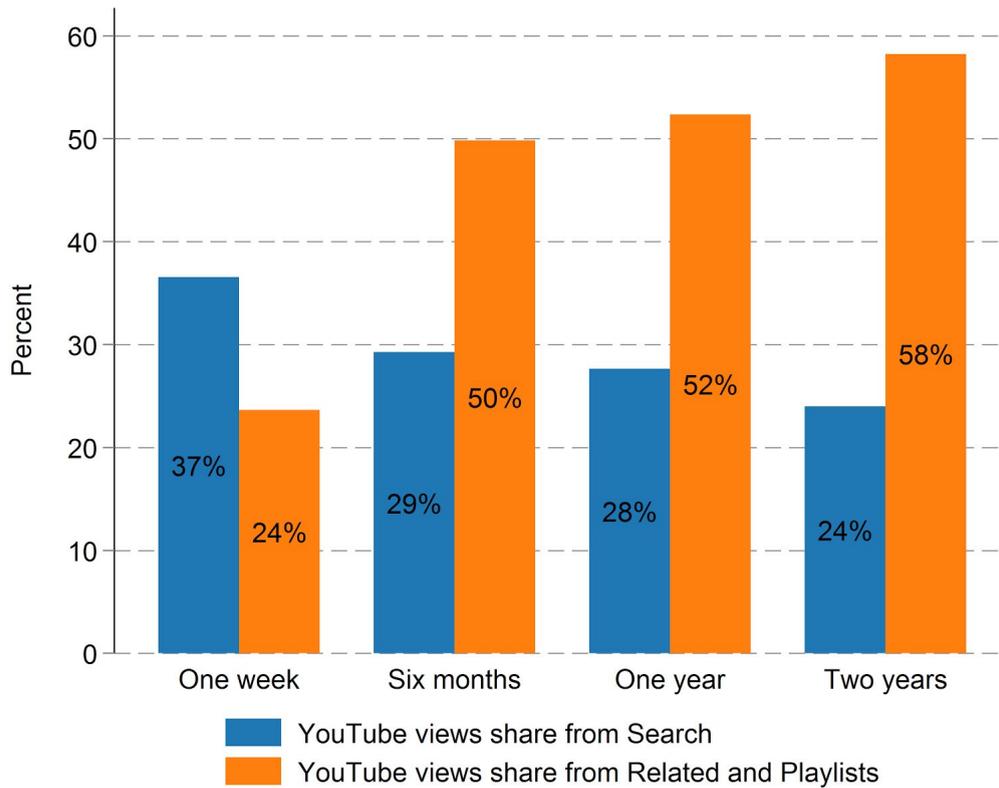
UGC accounts only 8% of total views for tracks less than 3 months, but increases to 26% of views for those older than 18 months.

4 Automated recommendations are important for YouTube users

The data on YouTube views also allow us to investigate whether YouTube views were driven by specific searches for a video or were automated recommendations, suggested by YouTube.

Figure 4, below, shows the share of YouTube views that were driven by specific searches, as opposed to YouTube recommendations (“Related”), or from “Playlists”, according to the age of the song.

Figure 4: Share of YouTube views by search, recommendations or playlists, by age of track, United Kingdom



Source: RBB analysis of YouTube internal data. The figure shows share of total YouTube views comprising “search” and “related” views for tracks of different ages.

While recommendations are important for all ages of music, this tends to increase with the age of the track. This effect becomes even more significant when also considering playlists like YouTube mix (an algorithmically-generated playlist based on music a user has listened to) or third-party created playlists. While only 24% of views of music in its first week following release are driven by YouTube recommendations or playlists, 58% of views of music over two years post release are driven by YouTube recommendations or playlists.

We understand that this number shifts to over 80% when considering views across all YouTube music videos, as opposed to our sample of the top tracks.

5 Conclusion

In this fourth note we have considered the evidence of the value derived for consumers, and in particular have considered the variety of music available to users on YouTube, and the different ways in which users can consume that music.

We have looked at historical data on YouTube views and streams on audio platforms for over 8,000 tracks across four European countries over a three year period.

These data show that **while users tend to listen more heavily to the most popular music on streaming platforms, users tend to consume more of the less popular and older tracks, on YouTube.**

User generated content is also an important way for users to consume music on YouTube, in particular for older and less popular tracks. YouTube recommendations are important in driving consumption of music on YouTube, and are particularly important for older tracks.